

LISTING OF CLAIMS

1. (Previously Presented) A solder composition made of a uniform mixture of a liquid substance and solder particles; wherein

the liquid substance comprises a flux component which reacts at a melting point of the solder particles;

the mixture of the liquid substance and solder particles has a viscosity that flows at room temperature and deposits in layers on a base material; and

the solder particles are mixed in the liquid substance at room temperature, and are granular agents that precipitate in the liquid substance towards the base material, having a mixing ratio and a particle diameter to be uniformly dispersible within the liquid substance,

wherein the mixing ratio of the solder particles is less than or equal to 30wt%.

2. (Cancelled).

3. (Original) The solder composition as claimed in claim 1, wherein the particle diameter of the solder particle is less than or equal to 35 μm .

4. (Original) The solder composition as claimed in claim 1, wherein only a natural oxidized film is formed on a surface oxidized film of the solder particles.

5. (Original) The solder composition as claimed in claim 1, wherein the flux component contained in the liquid substance accelerates the soldering between the solder particles and the base material and accelerates coalescence of the solder particles with the solder coating formed

on the base material while suppresses coalescence of the solder particles by the reaction product thereof.

6. (Original) The solder composition as claimed in claim 5, wherein the flux component is acid.

7. (Original) The solder composition as claimed in claim 6, wherein the acid is an organic acid.

8. (Original) The solder composition as claimed in claim 1, wherein the liquid substance is fat.

9. (Original) The solder composition as claimed in claim 8, wherein the flux component is free fatty acid contained in the fat.

10. (Original) The solder composition as claimed in claim 8, wherein the fat is fatty acid ester.

11. (Original) The solder composition as claimed in claim 10, wherein the fatty acid ester is neopentylpolyolester.

12. (Original) The solder composition as claimed in claim 8, wherein an acid value of the fat is greater than or equal to one.

13. (Previously Presented) A method of forming bumps comprising:
deposition for depositing on a base material a solder composition comprising a mixture of solder particles and a liquid substance with flux component whose reaction temperature is close to the melting point of the solder particles, the solder composition having a viscosity that flows at normal temperature and that deposits in layers on a base material, and solder particles that precipitate through the liquid substance towards the base material and that have a mixing ratio and a particle diameter to be uniformly dispersible within the liquid substance; and

reflow step for heating the solder composition and forming bumps made up of solder particles on the base material,

wherein the solder particles are uniformly dispersed in the liquid substance by stirring the solder composition in a pre-stage of the deposition; and

wherein the mixing ratio of the solder particles is less than or equal to 30wt%.

14. (Cancelled).

15. (Original) The method of forming bumps as claimed in claim 13, wherein the solder composition is spin coated to a uniform thickness by rotating the base material in the deposition step.

16. (Original) The method of forming bumps as claimed in claim 13, wherein the solder composition is poured into a container arranged with the base material, and the base material is immersed in the solder composition in the deposition step.

17. (Previously Presented) A solder composition made of a uniform mixture of a liquid substance and solder particles; wherein

the liquid substance comprises a flux component which reacts at a melting point of the solder particles;

the mixture of the liquid substance and solder particles has a viscosity that flows at a normal temperature and deposits in layers on a base material;

the solder particles are mixed in the liquid substance at room temperature, and are granular agents that precipitate in the liquid substance towards the base material, having a mixing ratio and a particle diameter to be uniformly dispersible within the liquid substance; and

the particle diameter of the solder particles is 35 μm or less.

18. (Previously Presented) A method of forming bumps comprising:

deposition step for depositing on a base material a solder composition including a mixture of solder particles and a liquid substance with flux component whose reaction temperature is close to the melting point of the solder particles, having a viscosity that flows at normal temperature and that deposits in layers on a base material, and solder particles that precipitate through the liquid substance towards the base material and that have a mixing ratio and a particle diameter to be uniformly dispersible within the liquid substance; and

reflow step for heating the solder composition and forming bumps made up of solder particles on the base material, wherein

in the deposition, the particle diameter of the solder particle is set to be 35 μm or less.